

Claims:

1. A method for implementing a multimedia messaging service between a wireless terminal (MS) that communicates with a communication network (12, 15, 18) over a radio path and a server (20), the method comprising the steps of:

- 5 - Receiving and storing a multimedia message addressed to the wireless terminal at the server, said multimedia message comprising at least one multimedia component,
- 10 - Storing information on at least one property of the wireless terminal (MS) in the server,

15 **characterized in that** the method further comprises determining if there is any component of the multimedia message which the wireless terminal can handle according to the stored information on at least one property of the wireless terminal, wherein if there exists one or more such component(s), they are selected for transmission and transmitted to the wireless terminal.

20 2. The method according to claim 1, **characterized in that** the method further comprises the step of selecting at least one bearer for transmission of the selected component(s) of the multimedia message.

25 3. The method according to claim 2, **characterized in that** the selection of at least one bearer is performed in the wireless terminal.

30 4. The method according to claim 1, **characterized in that** the method further comprises the step of transmitting a notification message to the wireless terminal comprising information about at least one property of said at least one multimedia component.

35 5. The method according to claim 1, **characterized in that** the selection of a component of a multimedia message for transmission is performed in the server.

6. The method according to claim 1, **characterized in that** information on at least one property of the wireless terminal (MS) is changed to prevent or allow the transmission of at least one component of the multimedia message.

7. The method according to claim 1, **characterized** in that said information on the properties of the wireless terminal (MS) comprises information on the available storage capacity of the wireless terminal (MS)

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8. The method according to claim 1, **characterized** in that said information on the properties of the wireless terminal (MS) comprises information on the capability of the wireless terminal (MS) to process multimedia components of a particular type.

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9. The method according to claim 8, **characterized** in that the capability of the wireless terminal (MS) to process multimedia components is defined on the basis of the hardware properties of the wireless terminal (MS) and / or the properties of the programs installed in the wireless terminal (MS).

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10. The method according to claim 1, **characterized** in that a maximum time of validity is defined for the information on the properties of the wireless terminal (MS) stored in said server (20).

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11. The method according to claim 1, in which a multimedia message addressed to the wireless terminal (MS) and comprising at least one multimedia component, is received at the server (20) and a notification message (30) is transmitted to the wireless terminal (MS) to indicate that a multimedia message has arrived, **characterized** in that in the method it is examined whether information on the properties of the wireless terminal (MS) in question is stored in the server (20), wherein, if said information is not stored in the server (20), said notification message (30) is supplemented with a request (38) to update the properties of the wireless terminal (MS), wherein information on the properties of the wireless terminal (MS) is transmitted from the wireless terminal (MS) to the server (20).

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12. The method according to claim 11, **characterized** in that in the method it is also examined whether said information on the properties of the wireless terminal stored in the server (20) is valid, wherein if said information is not valid, said notification message (30) is supplemented

with a request (38) to update the properties of the wireless terminal (MS).

13. The method according to claim 12, **characterized** in that in the 5 method, said property information stored in the server (20) is used as the property information of the wireless terminal (MS) if the sever does not receive a reply from the wireless terminal (MS) to said property update request.

10 14. The method according to claim 10, in which a connection set-up request message (40) is transmitted from the wireless terminal (MS) to set up a connection for transmission of at least one multimedia component of a multimedia message addressed to said wireless terminal (MS), **characterized** in that in the method it is examined 15 whether said notification message (30) contains a request to update the properties of the wireless terminal (MS), wherein information on the properties of the wireless terminal (MS) is transmitted from the wireless terminal (MS) to the server (20) in said connection set-up request.

20 15. The method according to claim 1, **characterized** in that a WAP terminal is used as a wireless terminal (MS) and that a multimedia message service centre (MMSC) is used as a server.

25 16. The method according to claim 15, in which a connection set-up request (40) is transmitted from the wireless terminal (MS) to set up a connection for the transmission of at least one multimedia component of a multimedia message addressed to said wireless terminal (MS), **characterized** in that the connection set-up message (40) used is a Uaprof information transmission message according to WAP 30 specifications, and that the header field (41) is supplemented with a profile-diff header field, if the connection set-up message is supplemented with information on the properties of the wireless terminal (MS), or the header field (41) is supplemented with a profile header field if the connection set-up message is not supplemented with 35 information on the properties of the wireless terminal (MS).

17. The method according to claim 1, **characterized** in that those components of the multimedia message specified in the property

information of the receiving wireless terminal (MS) stored in the multimedia messaging system are transmitted without a transmission request being transmitted from the wireless terminal (MS).

5 18. The method according to claim 1, **characterized** in that a transmission request is transmitted from the wireless terminal (MS) to transmit such multimedia message components which have not been specified in the property information of the receiving wireless terminal (MS) stored in the multimedia messaging system.

10 19. A system comprising at least one wireless terminal (MS), a communication network (12, 15, 18), and at least one server (20) for implementing a multimedia messaging service between the wireless terminal (MS) that communicates with the communication network (12, 15, 18) over a radio path and the server (20), the server comprising:

- Means for receiving a multimedia message addressed to the terminal, means for storing the multimedia message in the server, the multimedia message comprising at least one multimedia component, and
- Means for storing information on at least one property of the wireless terminal (MS),

15 **characterized** in that the system comprises:

- Means for determining if there is any component of the multimedia message which the wireless terminal can handle according to the stored information on at least one property of the wireless terminal,
- Means for selecting for transmission to the wireless terminal at least one component of the multimedia message if there exists one or more such component(s), and
- Means for transmitting the selected component(s) to the wireless terminal.

20. The system according to claim 19, **characterized** in that the system further comprises means for selecting at least one bearer for transmission of the selected component(s) of the multimedia message.

25 35 21. The system according to claim 20, **characterized** in that the the wireless terminal comprises said means for selecting at least one bearer.

22. The system according to claim 19, **characterized** in that the system further comprises means for transmitting a notification message to the wireless terminal comprising information about at least one property of said at least one multimedia component.

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23. The system according to claim 22, **characterized** in that the server comprises said means for transmitting a notification message.

10 24. The system according to claim 19, **characterized** in that it comprises means for changing information on at least one property of the wireless terminal (MS) to prevent or allow the transmission of at least one component of the multimedia message.

15 25. The system according to claim 19, **characterized** in that said information on the properties of the wireless terminal (MS) comprises information on the available storage capacity of the wireless terminal (MS).

20 26. The system according to claim 19, in which each multimedia message is formed of at least one multimedia component, **characterized** in that said information on the properties of the wireless terminal (MS) comprises information on the capability of the wireless terminal to process multimedia components of a particular type.

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27. The system according to claim 26, **characterized** in that the capability of the wireless terminal (MS) to process multimedia components is specified on the basis of the hardware properties of the wireless terminal (MS) and / or on the basis of the properties of the programs stored in the wireless terminal (MS).

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28. The system according to claim 19, **characterized** in that a maximum time of validity is specified for said information on the properties of the wireless terminal (MS), stored in said server (20).

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29. The system according to claim 19, which comprises means (51, 52, 53) for receiving a multimedia message addressed to the wireless terminal (MS) at the server (20), the multimedia message comprising at

least one multimedia component, and means (18, 15, 12) for transmitting a notification message (30) from the server (20) to the wireless terminal (MS) to indicate that a multimedia message has arrived, **characterized** in that the system also comprises means for
5 examining whether information on the properties of the wireless terminal is stored in the server (20), means (55) for attaching a request (38) to update the properties of the wireless terminal (MS) to said notification message (30) and means (MPU, RF, ANT) for transmitting information on the properties of the wireless terminal (MS) from the
10 wireless terminal (MS) to the server (20).

30. The system according to claim 29, **characterized** in that it comprises means (55) for examining the validity of said property information of the wireless terminal (MS) stored in the server (20), and
15 means (55) for attaching a request (38) to update the properties of the wireless terminal (MS) to said notification message (30).

31. The system according to claim 30, **characterized** in that said property information stored in the server (20) is arranged to be used as
20 the property information of the wireless terminal (MS) if the server (20) has not received a reply from the wireless terminal (MS) to said property update request (38).

32. The system according to claim 29, in which the wireless terminal
25 comprises means (MPU, RF, ANT) for transmitting a connection set-up request (40) from the wireless terminal (MS) to the server (20) to set up a connection for transmission of at least one multimedia component of a multimedia message addressed to said wireless terminal (MS) **characterized** in that the system also comprises means for examining
30 whether said notification message (30) contains a request to update the properties of the wireless terminal (MS), and means (MPU, RF, ANT) for transmitting the property information of the wireless terminal (MS) to the server (20) in said connection set-up request message (40).

35 33. The system according to claim 19, **characterized** in that the wireless terminal (MS) is a WAP terminal and that the server is a multimedia message service centre (MMSC).

34. The system according to claim 33, in which the wireless terminal (MS) comprises means (MPU, RF, ANT) for transmitting a connection set-up request (40) from the wireless terminal (MS) to the server (20) to set up a connection for transmission of at least one multimedia component of a multimedia message addressed to said wireless terminal (MS) **characterized** in that the connection set-up request (40) is a Uaprof information transmission message according to WAP specifications, and that the header field (41) is supplemented with a profile-diff header field, if the connection set-up request is supplemented with information on the properties of the wireless terminal (MS), or a profile header field if the connection set-up message is not supplemented with information on the properties of the wireless terminal (MS).

15 35. A server (20) for implementing a multimedia messaging service between a wireless terminal (MS) that communicates with a communication network (12, 15, 18) over a radio path, the server comprising:

20 - Means for receiving a multimedia message addressed to the terminal, means for storing the multimedia message in the server, the multimedia message comprising at least one multimedia component, and

25 - Means for storing information on at least one property of the wireless terminal (MS),

25 **characterized** in that the server further comprises:

30 - Means for determining if there is any component of the multimedia message which the wireless terminal can handle according to the stored information on at least one property of the wireless terminal, and

30 - Means for selecting for transmission to the wireless terminal at least one component of the multimedia message if there exists one or more such component(s).

35 36. The server according to claim 35, **characterized** in that it comprises means for forming a notification message for transmission to the wireless terminal comprising information about at least one property of said at least one multimedia component.

37. The server according to claim 35, **characterized** in that it comprises means for changing information on at least one property of the wireless terminal (MS) to prevent or allow the transmission of at least one component of the multimedia message.

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38. The server (20) according to claim 35, **characterized** in that a maximum time of validity is specified for said information on at least one property of the wireless terminal (MS) stored in said server (20).

10 39. The server (20) according to claim 35, which comprises means (51, 52, 53) for receiving a multimedia message addressed to the wireless terminal (MS), which multimedia message comprises at least one multimedia component, and means (18, 15, 12) for forming a notification message (30) for transmission to the wireless terminal (MS) to indicate that a multimedia message has arrived, **characterized** in that the server (20) also comprises means to examine whether information on the properties of the wireless terminal (MS) in question is stored in the server (20), means (55) for attaching a request (38) to update the properties of the wireless terminal (MS) to said notification message (30), and means (MPU, RF, ANT) for receiving information on the properties of the wireless terminal (MS) at the server (20).

15 40. The server (20) according to claim 39, **characterized** in that it comprises means (55) for examining the validity of said property information of the wireless terminal (MS) stored in said server (20), and means (55) for attaching a request to update the properties of the wireless terminal (MS) to said notification message (30).

20 41. The server (20) according to claim 40, **characterized** in that said property information stored in the server (20) is arranged to be used as the property information of the wireless terminal (MS) if the server (20) has not received a reply from the wireless terminal (MS) to said property update request (38).

25 42. The server (20) according to claim 35, **characterized** in that it is a multimedia message service centre (MMSC).

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43. A wireless terminal (MS) to be used in a multimedia messaging system that comprises a communication network (12, 15, 18), and at least one server (20) for implementing a multimedia messaging service between the wireless terminal (MS) that communicates with the communication network (12, 15, 18) over a radio path and the server (20), the server comprising:

- 5 - Means for receiving a multimedia message addressed to the terminal, means for storing the multimedia message in the server, the multimedia message comprising at least one multimedia component, and
- 10 - Means for storing information on at least one property of the wireless terminal (MS),

15 **characterized** in that the wireless terminal comprises means for requesting a component of the multimedia message to be transmitted to the wireless terminal without identifying the component.

20 44. The wireless terminal (MS) according to claim 43, **characterized** in that it comprises said means for selecting at least one bearer for transmission of at least one component of the multimedia message.

25 45. The wireless terminal (MS) according to claim 43, **characterized** in that it further comprises means for receiving a notification message comprising information about at least one property of said at least one multimedia component.

30 46. The wireless terminal according to claim 43, **characterized** in that it comprises means for changing information on at least one property of the wireless terminal (MS) to prevent or allow the transmission of at least one component of the multimedia message.

35 47. The wireless terminal (MS) according to claim 43, **characterized** in that said information on the properties of the wireless terminal (MS) comprises information on the available storage capacity available of the wireless terminal (MS).

48. The wireless terminal (MS) according to claim 43 ~~to 47~~, characterized in that said information on the properties of the wireless

terminal (MS) comprises information on the capability of the wireless terminal to process multimedia components of a particular type.

5 49. The wireless terminal (MS) according to claim 48, **characterized** in that the capability of the wireless terminal (MS) to process multimedia components is specified on the basis of the hardware properties of the wireless terminal (MS) and / or on the basis of the properties of the programs installed in the wireless terminal (MS).

10 50. The wireless terminal (MS) according to claim 28 which comprises means (18, 15, 12) for receiving a notification message (30) transmitted from the server (20), which notification message (30) is transmitted to the wireless terminal (MS) to indicate that a multimedia message has arrived, **characterized** in that the wireless terminal (MS) also comprises means (55) for examining a request (38) to update the properties of the wireless terminal (MS) from said notification message (30), and means (MPU, RF, ANT) for transmitting information on the properties of the wireless terminal (MS) from the wireless terminal (MS) to the server (20).

15 20 51. The wireless terminal (MS) according to claim 28, **characterized** in that the wireless terminal (MS) is a WAP terminal.

25 52. The wireless terminal (MS) according to claim 51, which comprises means (MPU, RF, ANT) for transmitting a connection set-up request (40) from the wireless terminal (MS) to the server (20) to set up a connection for the transmission of at least one multimedia component of a multimedia message addressed to said wireless terminal (MS) **characterized** in that the connection set-up request (40) is a Uaprof information transmission message according to WAP specifications, and that the header field (41) is supplemented with a profile-diff header field, if the connection set-up request is supplemented with information on the properties of the wireless terminal (MS), or a profile header field if the connection set-up message is not supplemented with information 30 35 on the properties of the wireless terminal (MS).